

Notice of Allowability

Application No.

10/073,492

Examiner

Brian R. Peugh

Applicant(s)

EDIRISOORIYA ET AL.

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the filing of 9/16/05.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 9/16/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James A. Flight, Reg. No. 37,622, on October 13, 2005.

The application has been amended as follows:

Claim 24, line 10: Insert ~~—hardware—~~ after "permanent".

Claim 28, line 13: Insert ~~—hardware--~~ after "fixed".

The following is an examiner's statement of reasons for allowance: The prior art, including those cited on Applicant's IDS and that of Hayes et al., teach cache loading but fails to teach the combination including the limitation of:

(Claim 1) "...selecting the first cache or the second cache as an arbitration winner cache based on a fixed hardware arbitration hierarchy";

(Claim 8) "...tagging the memory block in the third cache as non-modified, wherein determining an arbitration winner cache comprises selecting a directory entry associated with the first or the second cache";

(Claim 9) "...tagging the memory block in the third cache as non-modified, wherein determining an arbitration winner cache comprises usage of a back-off based arbitration mechanism";

(Claim 10) "...tag the memory block in the first cache with an exclusive tag, and supply the memory block tagged exclusive to the second cache via the cache interconnect";

(Claim 14) "...the second processing agent to prevent the first processing agent from supplying the memory block tagged shared to the third cache by asserting the signal output";

(Claims 17 and 20) "...the first microprocessor of the second microprocessor to supply the third cache with a third copy of the memory block based on a physically predetermined arbitration hierarchy while the first copy of the memory block and the second copy of the memory block are in the non-modified state";

(Claim 24) "...selecting the first cache or the second cache to provide a copy of the memory block to the third cache based on a permanent hardware arbitration hierarchy between the first and second caches";

(Claim 26) "...preventing a third cache from copying the memory block to the second cache, wherein preventing a third cache from copying the memory block to the second cache comprises asserting a "back-off" signal";

(Claim 27) "...preventing a third cache from copying the memory block to the second cache, wherein preventing a third cache from copying the memory block to the

second cache comprises determining an arbitration winner cache represented in a cache directory”;

(Claim 28) “...preventing a third cache having a third copy of the memory block from supplying the second copy of the memory block to the second cache if the first and third copies of the memory block are in the shared state and the first cache has a higher cache intervention policy under a fixed hardware hierarchy defined between the first and second caches”.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

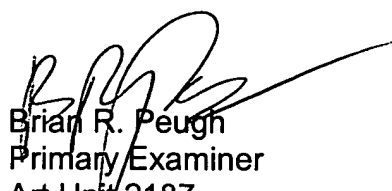
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Peugh whose telephone number is (571) 272-4199. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm. The examiner can also be reached on alternate Friday's from 7:00am to 4:30pm.

Art Unit: 2187

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks, can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian R. Peugh
Primary Examiner
Art Unit 2187
October 14, 2005